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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,989	09/18/2000	Robert Charles Susil	55106 (71699)	4542

7590 06/19/2002

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EXAMINER

SHAH, DEVAANG

ART UNIT

PAPER NUMBER

3737

DATE MAILED: 06/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/663,989

Applicant(s)

SUSIL ET AL.

Examiner

Devaang Shah

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10, 13-21, 30-34, 37 and 39-42 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 11, 12, 22-29, 35, 36 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-7, 10, 13-21, 30-34, 37, 39, and 40-42 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,318,025 to Dumoulin et al. Dumoulin et al. disclose a tracking system to monitor the position and orientation of a device such as a catheter by using magnetic resonance detection. The magnetic resonance scanner used is capable of providing cross-sectional images.

As shown in figures 2a and 2b, the flexible device contains intermediate sensors (200b-200n) and a sensor proximate the distal tip (200a). The sensors are RF coils that detect MR signals that are generated in response to a controlled three-dimensional magnetic field generated by a set of magnetic field gradient coils. Signals detected by the sensors are transmitted to the system through conductors (columns 3-6). Processing and calculating means provide the identifiable points (positions) for all of the coils (200a-200n), and determine the unique orientation of the device within its range of motion from the calculated positions. The results are displayed as an image representing the device's position and orientation (column 6, lines 44-68; column 7, lines 1-2). As shown in figure 1, the operator uses image display (180) to manipulate the medical instrument.

Response to Arguments

2. Applicant's arguments have been fully considered but Examiner disagrees with the arguments set forth. Applicant argues that "in Dumoulin the generation of cross-sectional images and the particular imaging technique for generating such images is completely separate from the technique and process utilized to track or localize the device within the subject that is described and taught in Dumoulin." Applicant claims "An imaging system for invasive therapy of a patient, the system comprising:

an imaging apparatus that can provide a cross-sectional image of a patient;

a medical instrument comprising a fiducial object that can be imaged in the same image as a targeted site of the patient."

Imaging is simply the action or process of producing an image, especially by means other than visible light. Use of the term "imaging" does not automatically imply that all elements are acquired simultaneously. It means that an image containing all elements is produced. Applicant does not claim simultaneous acquisition of anything. Dumoulin utilizes magnetic resonance imaging, which results in production of tomographic images.

Allowable Subject Matter

3. Claims 8, 9, 11, 12, 22-29, 35, 36, and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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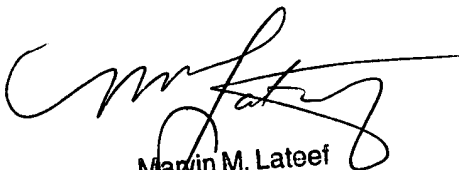
Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devaang Shah whose telephone number is 703-306-0333. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on 703 308-3256. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3590 for regular communications and 703-308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

DS DS
March 19, 2003


Marvin M. Lateef
Supervisory Patent Examiner
Group 3700